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EXAMINER

JACOBS, LASHONDA T

ART UNIT PAPER NUMBER

2157

DATE MAILED: 01/06/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

Application No.

09/770,427

Applicant(s)

SECER, SEMIH

Examiner

LaShonda T Jacobs

Art Unit

2157

-- Th MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 23 September 2004.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☐ Claim(s) \_\_\_\_\_ is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-35 and 37-63 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

## DETAILED ACTION

### *Response to Amendment*

This is a Final Office Action in response to Applicant's Amendment and Request for Reconsideration filed on September 23, 2004. Claim 16 has been cancelled. Claims 1-35 and 37-63 are presented for further examination.

### *Claim Rejections - 35 USC § 102*

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

2. Claims 1, 23-25, 27-34, 59-60 and 62 are rejected under 35 U.S.C. 102(e) as being anticipated by Kekic et al (hereinafter, "Kekic", 6,664,978).

As per claim 1, Kekic discloses a method for implementing a state model for managing at least one distributed network, element communicatively coupled to a central management system said method comprising:

- presenting a user interface for said central management system to enable a user to define at least one state model for managing at least one network element based on a determined state of said at least one network element (abstract, col. 5, lines 40-51, col. 6, lines 7-25, col. 15, lines 4-21, col. 19, lines 25-58, col. 24, lines 28-41, col. 36, lines 56-67 and col. 37, lines 1-4);

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- presenting a user interface on said management system to enable a user to define at least one poll service that includes at least one of said at least one state model (abstract, col. 5, lines 40-51, col. 19, lines 25-58 and col. 39, lines 9-26); and
- executing said at least one poll service to manage said at least one network element (col. 19, lines 25-58 and col. 77, lines 1-35).

As per claim 23, Kekic discloses wherein said at least one network element includes a network element selected from the group consisting of:

- ATM, Sonet, router, modem, CMIP EMS, switch OSS, NMS, and web server (col. 1, lines 41-45, col. 13, lines 36-45, col. 14, lines 21-23 and col. 25, lines 40-45).

As per claim 24, Kekic discloses:

- wherein said user interface is a graphical user interface (abstract, lines 24-35, col. 5, lines 40-51 and col. 14, lines 16-23).

As per claim 25, Kekic discloses wherein said at least one state model includes:

- software code specifying at least two user-defined states for a network element (col. 19, lines 25-58, col. 36, lines 33-67 and col. 37, lines 1-4);
- software code specifying at least one transition from a first of said at least two user defined states to a second of said at least two user-defined states (col. 19, lines 25-58, col. 36, lines 33-67 and col. 37, lines 1-4); and
- software code specifying at least one transition action to be performed upon the occurrence of said at least one transition (col. 19, lines 25-58, col. 36, lines 33-67 and col. 37, lines 1-4).

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As per claim **27**, Kekic discloses wherein said transition action includes any one or more selected from the group consisting of:

- enabling a particular poll service for said at least one network element, disabling a particular poll service for said at least one network element, enabling a particular state model for said at least one network element, disabling a particular state model for said at least one network element, and triggering one or more user-defined commands to be executed (col. 19, lines 25-58, col. 35, lines 50-62 and col. 76, lines 50-67).

As per claim **28**, Kekic discloses wherein said executing said at least one poll service further includes:

- triggering execution of said poll service in response to the occurrence of a user defined event (col. 19, lines 25-58 and col. 35, lines 50-62).

As per claim **29**, Kekic discloses:

- wherein said user-defined event includes a particular fault condition defined by a user (col. 19, lines 25-58, col. 35, lines 50-62 and col. 76, lines 50-67).

As per claim **30**, Kekic discloses:

- wherein said at least one poll service is executed only if a user-defined activation condition for said at least one poll service is satisfied (col. 19, lines 25-58 and col. 35, lines 50-62).

As per claim **31**, Kekic discloses:

- wherein said user-defined activation condition specifies that said poll service is for a particular type of network element (col. 26, lines 55-67 and col. 27, lines 1-27).

As per claim **32**, Kekic discloses:

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- wherein said management system enables a user to dynamically define said at least one poll service during runtime (col. 6, lines 43-47 and col. 19, lines 25-58).

As per claim 33, Kekic discloses:

- wherein said management system enables a user to dynamically define said at least one state model during runtime (col. 6, lines 43-47 and col. 19, lines 25-58).

As per claim 34, Kekic discloses:

- wherein said management system enables a user to dynamically modify an existing poll service or state model during runtime (col. 6, lines 43-47 and col. 19, lines 25-58).

As per claim 59, Kekic discloses a method for performing state-based management of a network, wherein network elements are managed based on their state, said method comprising:

- executing at least one user-defined state model for managing at least one network element based on a determined state of said at least one network element, wherein said executing at least one user-defined state model includes polling said at least one network element for data, evaluating said data to determine whether a user-defined state transition condition is satisfied, and triggering a state transition if said user-defined state transition condition is satisfied for a user-defined number of consecutive polls of said at least one network element (col. 19, lines 25-58, col. 36, lines 33-67 and col. 37, lines 1-4).

As per claim 60, Kekic discloses:

- wherein said user-defined number of consecutive polls is a plurality of polls (col. 19, lines 25-58, col. 36, lines 33-67 and col. 37, lines 1-4).

As per claim 62, Kekic discloses:

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- wherein if said user-defined state transition condition is satisfied for a user-defined number of consecutive polls of said at least one network element, then one or more user-defined transition actions for the user defined state transition are triggered (col. 19, lines 25-58, col. 36, lines 33-67 and col. 37, lines 1-4).

***Claim Rejections - 35 USC § 103***

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 2-22, 26, 35, 37-58, 61 and 63 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kekic in view of Barrack et al (hereinafter, "Barrack", 6,047,279).

As per claim 35, discloses a method for enabling state-based management of a network, wherein network elements are managed based on their state, said method comprising:

- receiving input from a user at a management system to define at least one state model for managing at least one network element based on a determined state of said at least one network element (abstract, col. 5, lines 40-51, col. 6, lines 7-25, col. 15, lines 4-21, col. 19, lines 25-58, col. 24, lines 28-41, col. 36, lines 56-67 and col. 37, lines 1-4);
- receiving input from a user at said management system to define at least one poll service that includes at least one of said at least one state model (abstract, col. 5, lines 40-51, col. 19, lines 25-58 and col. 39, lines 9-26);

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- executing said at least one poll service to manage said at least one network element (col. 19, lines 25-58 and col. 77, lines 1-35); and
- wherein said management system is a central management system (abstract, col. 5, lines 40-51, col. 19, lines 25-58 and col. 39, lines 9-26).

However, Kekic does not explicitly disclose:

- at least one distributed polling gateway.

In an analogous art, Barrack discloses a system and method for automatic network management support using artificial intelligence including:

- at least one distributed polling gateway (col. 2, lines 55-67 and col. 3, lines 1-42).

Accordingly, it would have been obvious to one of ordinary skill in the networking art at the time the invention was made to have incorporated Barrack's teachings of a system and method for automatic network management support with the teachings of Kekic, for the purpose of providing the user with a system that improves upon NMS (customized) "legacy" network management system and operation support systems scalability when adding more elements as well as the flexibility when adding these element. Which would significantly reduce cost and the human effort [see Barrack, Col. 3, lines 42-54]. Thus, Kekic provides the motivation to combine by utilizing a network management system as well as attempting to efficiently manage a constant changing network environment that includes heterogeneous elements [see Kekic, Col. 4, lines 57-67 and Col 5, lines 1-6].

As per claim 2, Kekic discloses wherein said steps of presenting a user interface on said management system comprises:



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- presenting said user interface on said central management system (abstract, col. 5, lines 40-51, col. 6, lines 7-25, col. 15, lines 4-21, col. 19, lines 25-58, col. 24, lines 28-41, col. 36, lines 56-67 and col. 37, lines 1-4).

However, Kekic does not explicitly disclose:

- a user interface that is communicatively coupled to at least one distributed polling gateway.

In an analogous art, Barrack discloses a system and method for automatic network management support using artificial intelligence including:

- a user interface that is communicatively coupled to at least one distributed polling gateway (col. 3, lines 1-42).

Accordingly, it would have been obvious to one of ordinary skill in the networking art at the time the invention was made to have incorporated Barrack's teachings of a system and method for automatic network management support with the teachings of Kekic, for the purpose of providing the user with a system that improves upon NMS (customized) "legacy" network management system and operation support systems scalability when adding more elements as well as the flexibility when adding these element. Which would significantly reduce cost and the human effort [see Barrack, Col. 3, lines 42-54]. Thus, Kekic provides the motivation to combine by utilizing a network management system as well as attempting to efficiently manage a constant changing network environment that includes heterogeneous elements [see Kekic, Col. 4, lines 57-67 and Col 5, lines 1-6].

As per claims 3 and 37, Kekic discloses:

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- distributing said at least one poll service defined by said user (abstract, col. 5, lines 40-51, col. 19, lines 25-58 and col. 39, lines 9-26).

However, Kekic does not explicitly disclose:

- at least one distributed polling gateway for execution thereon.

In an analogous art, Barrack discloses a system and method for automatic network management support using artificial intelligence including:

- at least one distributed polling gateway for execution thereon (col. 2, lines 55-67 and col. 3, lines 1-42).

Accordingly, it would have been obvious to one of ordinary skill in the networking art at the time the invention was made to have incorporated Barrack's teachings of a system and method for automatic network management support with the teachings of Kekic, for the purpose of providing the user with a system that improves upon NMS (customized) "legacy" network management system and operation support systems scalability when adding more elements as well as the flexibility when adding these element. Which would significantly reduce cost and the human effort [see Barrack, Col. 3, lines 42-54]. Thus, Kekic provides the motivation to combine by utilizing a network management system as well as attempting to efficiently manage a constant changing network environment that includes heterogeneous elements [see Kekic, Col. 4, lines 57-67 and Col 5, lines 1-6].

As per claim 4, Kekic discloses:

- distributing said at least one poll service defined by said user (abstract, col. 5, lines 40-51, col. 19, lines 25-58 and col. 39, lines 9-26).

However, Kekic does not explicitly discloses:

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- a plurality of distributed polling gateways for execution thereon.

In an analogous art, Barrack discloses a system and method for automatic network management support using artificial intelligence including:

- a plurality of distributed polling gateways for execution thereon (col. 2, lines 55-67 and col. 3, lines 1-42).

Accordingly, it would have been obvious to one of ordinary skill in the networking art at the time the invention was made to have incorporated Barrack's teachings of a system and method for automatic network management support with the teachings of Kekic, for the purpose of providing the user with a system that improves upon NMS (customized) "legacy" network management system and operation support systems scalability when adding more elements as well as the flexibility when adding these element. Which would significantly reduce cost and the human effort [see Barrack, Col. 3, lines 42-54]. Thus, Kekic provides the motivation to combine by utilizing a network management system as well as attempting to efficiently manage a constant changing network environment that includes heterogeneous elements [see Kekic, Col. 4, lines 57-67 and Col 5, lines 1-6].

As per claim 5, Kekic discloses the invention substantially as claims discussed above.

However, Kekic does not explicitly discloses:

- wherein said gateways each have the ability to communicate with one or more network elements in a particular one of communication protocols selected from the group consisting of: SNMP protocol and CMIP protocol.

In an analogous art, Barrack discloses a system and method for automatic network management support using artificial intelligence including:

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- wherein said gateways each have the ability to communicate with one or more network elements in a particular one of communication protocols selected from the group consisting of: SNMP protocol and CMIP protocol (col. 2, lines 55-67, col. 3, lines 1-42 col. 4, lines 65-67, col. 5, lines 1-16).

Accordingly, it would have been obvious to one of ordinary skill in the networking art at the time the invention was made to have incorporated Barrack's teachings of a system and method for automatic network management support with the teachings of Kekic, for the purpose of providing the user with a system that improves upon NMS (customized) "legacy" network management system and operation support systems scalability when adding more elements as well as the flexibility when adding these element. Which would significantly reduce cost and the human effort [see Barrack, Col. 3, lines 42-54]. Thus, Kekic provides the motivation to combine by utilizing a network management system as well as attempting to efficiently manage a constant changing network environment that includes heterogeneous elements [see Kekic, Col. 4, lines 57-67 and Col 5, lines 1-6].

As per claims 6 and 38, Kekic discloses the invention substantially as claims discussed above.

However, Kekic does not explicitly disclose:

- wherein said at least one distributed polling gateway filters data.

In an analogous art, Barrack discloses a system and method for automatic network management support using artificial intelligence including:

- wherein said at least one distributed polling gateway filters data (col. 2, lines 55-67).

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Accordingly, it would have been obvious to one of ordinary skill in the networking art at the time the invention was made to have incorporated Barrack's teachings of a system and method for automatic network management support with the teachings of Kekic, for the purpose of providing the user with a system that improves upon NMS (customized) "legacy" network management system and operation support systems scalability when adding more elements as well as the flexibility when adding these element. Which would significantly reduce cost and the human effort [see Barrack, Col. 3, lines 42-54]. Thus, Kekic provides the motivation to combine by utilizing a network management system as well as attempting to efficiently manage a constant changing network environment that includes heterogeneous elements [see Kekic, Col. 4, lines 57-67 and Col 5, lines 1-6].

As per claim 8, Kekic discloses:

- executing software to evaluate a user-defined state model condition to determine whether to execute each of said at least one state model (col. 19, lines 25-58, col. 36, lines 33-67 and col. 37, lines 1-4).

However, Kekic does not explicitly disclose:

- at least one distributed polling gateway.

In an analogous art, Barrack discloses a system and method for automatic network management support using artificial intelligence including:

- at least one distributed polling gateway (col. 2, lines 55-67 and col. 3, lines 1-42).

Accordingly, it would have been obvious to one of ordinary skill in the networking art at the time the invention was made to have incorporated Barrack's teachings of a system and method for automatic network management support with the teachings of Kekic, for the purpose of

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providing the user with a system that improves upon NMS (customized) “legacy” network management system and operation support systems scalability when adding more elements as well as the flexibility when adding these element. Which would significantly reduce cost and the human effort [see Barrack, Col. 3, lines 42-54]. Thus, Kekic provides the motivation to combine by utilizing a network management system as well as attempting to efficiently manage a constant changing network environment that includes heterogeneous elements [see Kekic, Col. 4, lines 57-67 and Col 5, lines 1-6].

As per claim 9, Kekic discloses:

- wherein said state model condition specifies that said at least one state model is to be executed only for particular network elements (col. 19, lines 25-58, col. 36, lines 33-67 and col. 37, lines 1-4).

As per claim 10, Kekic discloses:

- retrieving from said at least one network element needed values for values defined for said at least one state model (col. 19, lines 25-58, col. 36, lines 33-67 and col. 37, lines 1-4).

However, Kekic does not explicitly disclose:

- at least one distributed polling gateway.

In an analogous art, Barrack discloses a system and method for automatic network management support using artificial intelligence including:

- at least one distributed polling gateway (col. 2, lines 55-67 and col. 3, lines 1-42).

Accordingly, it would have been obvious to one of ordinary skill in the networking art at the time the invention was made to have incorporated Barrack’s teachings of a system and method

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for automatic network management support with the teachings of Kekic, for the purpose of providing the user with a system that improves upon NMS (customized) "legacy" network management system and operation support systems scalability when adding more elements as well as the flexibility when adding these element. Which would significantly reduce cost and the human effort [see Barrack, Col. 3, lines 42-54]. Thus, Kekic provides the motivation to combine by utilizing a network management system as well as attempting to efficiently manage a constant changing network environment that includes heterogeneous elements [see Kekic, Col. 4, lines 57-67 and Col 5, lines 1-6].

As per claim 11, Kekic discloses:

- executing software to evaluate one or more user-defined equations for said at least one state model utilizing the retrieved variable values (col. 19, lines 25-58, col. 36, lines 33-67 and col. 37, lines 1-4).

However, Kekic does not explicitly disclose:

- at least one distributed polling gateway.

In an analogous art, Barrack discloses a system and method for automatic network management support using artificial intelligence including:

- at least one distributed polling gateway (col. 2, lines 55-67 and col. 3, lines 1-42).

Accordingly, it would have been obvious to one of ordinary skill in the networking art at the time the invention was made to have incorporated Barrack's teachings of a system and method for automatic network management support with the teachings of Kekic, for the purpose of providing the user with a system that improves upon NMS (customized) "legacy" network management system and operation support systems scalability when adding more elements as

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well as the flexibility when adding these element. Which would significantly reduce cost and the human effort [see Barrack, Col. 3, lines 42-54]. Thus, Kekic provides the motivation to combine by utilizing a network management system as well as attempting to efficiently manage a constant changing network environment that includes heterogeneous elements [see Kekic, Col. 4, lines 57-67 and Col 5, lines 1-6].

As per claims 18 and 43, Kekic discloses wherein said presenting a user interface on a management system to enable a user to define at least one state model, further comprises:

- providing a user interface that allows a user to define a plurality of states within a state model for a network element (col. 19, lines 25-58, col. 36, lines 33-67 and col. 37, lines 1-4);
- providing a user interface that allows a user to define at least one transition condition that specifies when a transition from one state to another state is to occur (col. 19, lines 25-58, col. 36, lines 33-67 and col. 37, lines 1-4); and
- providing a user interface that allows a user to define at least one transition action to be performed upon the occurrence of a transition (col. 19, lines 25-58, col. 36, lines 33-67 and col. 37, lines 1-4).

As per claims 19 and 44, Kekic further discloses:

- correlating various different state models (col. 19, lines 25-58 and col. 40, lines 43-67).

As per claim 48, Kekic discloses a system for managing network elements based on their state, said system comprising:

- at least one network element (col. 1, lines 41-45, col. 13, lines 36-45, col. 14, lines 21-23 and col. 25, lines 40-45);



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- at least one state model and managing said at least one network element based on a determined state of said at least one network element (col. 19, lines 25-58, col. 36, lines 33-67 and col. 37, lines 1-4); and
- central management (abstract, col. 5, lines 40-51, col. 19, lines 25-58 and col. 39, lines 9-26).

However, Kekic does not explicitly disclose:

- one or more distributed gateways for monitoring said at least one network element, said one or more distributed gateways.

In an analogous art, Barrack discloses a system and method for automatic network management support using artificial intelligence including:

- one or more distributed gateways for monitoring said at least one network element, said one or more distributed gateways (col. 3, lines 1-42).

Accordingly, it would have been obvious to one of ordinary skill in the networking art at the time the invention was made to have incorporated Barrack's teachings of a system and method for automatic network management support with the teachings of Kekic, for the purpose of providing the user with a system that improves upon NMS (customized) "legacy" network management system and operation support systems scalability when adding more elements as well as the flexibility when adding these element. Which would significantly reduce cost and the human effort [see Barrack, Col. 3, lines 42-54]. Thus, Kekic provides the motivation to combine by utilizing a network management system as well as attempting to efficiently manage a constant changing network environment that includes heterogeneous elements [see Kekic, Col. 4, lines 57-67 and Col 5, lines 1-6].

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As per claims 7, 39 and 52, Kekic discloses:

- communicating data satisfying said at least one state model to said central management system (col. 19, lines 25-58 and col. 35, lines 50-62).

However, Kekic does not explicitly disclose:

- at least one distributed polling gateway.

In an analogous art, Barrack discloses a system and method for automatic network management support using artificial intelligence including:

- at least one distributed polling gateway (col. 2, lines 55-67 and col. 3, lines 1-42).

Accordingly, it would have been obvious to one of ordinary skill in the networking art at the time the invention was made to have incorporated Barrack's teachings of a system and method for automatic network management support with the teachings of Kekic, for the purpose of providing the user with a system that improves upon NMS (customized) "legacy" network management system and operation support systems scalability when adding more elements as well as the flexibility when adding these element. Which would significantly reduce cost and the human effort [see Barrack, Col. 3, lines 42-54]. Thus, Kekic provides the motivation to combine by utilizing a network management system as well as attempting to efficiently manage a constant changing network environment that includes heterogeneous elements [see Kekic, Col. 4, lines 57-67 and Col 5, lines 1-6].

As per claims 12, 40 and 53, Kekic discloses:

- executing software to evaluate one or more user-defined state transition conditions for said at least one state model to determine whether said one or more user-defined state

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transition conditions are satisfied (col. 19, lines 25-58, col. 36, lines 33-67 and col. 37, lines 1-4).

However, Kekic does not explicitly disclose:

- at least one distributed polling gateway.

In an analogous art, Barrack discloses a system and method for automatic network management support using artificial intelligence including:

- at least one distributed polling gateway (col. 2, lines 55-67 and col. 3, lines 1-42).

Accordingly, it would have been obvious to one of ordinary skill in the networking art at the time the invention was made to have incorporated Barrack's teachings of a system and method for automatic network management support with the teachings of Kekic, for the purpose of providing the user with a system that improves upon NMS (customized) "legacy" network management system and operation support systems scalability when adding more elements as well as the flexibility when adding these element. Which would significantly reduce cost and the human effort [see Barrack, Col. 3, lines 42-54]. Thus, Kekic provides the motivation to combine by utilizing a network management system as well as attempting to efficiently manage a constant changing network environment that includes heterogeneous elements [see Kekic, Col. 4, lines 57-67 and Col 5, lines 1-6].

As per claim 13, Kekic discloses:

- determining that said one or more user-defined state transition conditions are not satisfied, then the state of said at least one network element remains unchanged (col. 19, lines 25-58, col. 36, lines 33-67 and col. 37, lines 1-4).

However, Kekic does not explicitly disclose:

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- at least one distributed polling gateway.

In an analogous art, Barrack discloses a system and method for automatic network management support using artificial intelligence including:

- at least one distributed polling gateway (col. 2, lines 55-67 and col. 3, lines 1-42).

Accordingly, it would have been obvious to one of ordinary skill in the networking art at the time the invention was made to have incorporated Barrack's teachings of a system and method for automatic network management support with the teachings of Kekic, for the purpose of providing the user with a system that improves upon NMS (customized) "legacy" network management system and operation support systems scalability when adding more elements as well as the flexibility when adding these element. Which would significantly reduce cost and the human effort [see Barrack, Col. 3, lines 42-54]. Thus, Kekic provides the motivation to combine by utilizing a network management system as well as attempting to efficiently manage a constant changing network environment that includes heterogeneous elements [see Kekic, Col. 4, lines 57-67 and Col 5, lines 1-6].

As per claims 14, 41 and 54, Kekic discloses:

- determining that said one or more user-defined state transition conditions are satisfied, then a state transition for said at least one network element is triggered (col. 19, lines 25-58, col. 36, lines 33-67 and col. 37, lines 1-4).

However, Kekic does not explicitly disclose:

- at least one distributed polling gateway.

In an analogous art, Barrack discloses a system and method for automatic network management support using artificial intelligence including:

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- at least one distributed polling gateway (col. 2, lines 55-67 and col. 3, lines 1-42).

Accordingly, it would have been obvious to one of ordinary skill in the networking art at the time the invention was made to have incorporated Barrack's teachings of a system and method for automatic network management support with the teachings of Kekic, for the purpose of providing the user with a system that improves upon NMS (customized) "legacy" network management system and operation support systems scalability when adding more elements as well as the flexibility when adding these element. Which would significantly reduce cost and the human effort [see Barrack, Col. 3, lines 42-54]. Thus, Kekic provides the motivation to combine by utilizing a network management system as well as attempting to efficiently manage a constant changing network environment that includes heterogeneous elements [see Kekic, Col. 4, lines 57-67 and Col 5, lines 1-6].

As per claim 16, Kekic discloses:

- determining that said one or more user-defined state transition conditions are satisfied in a user-defined number of consecutive polls of said at least one network element, then a state transition for said at least one network element is triggered (col. 19, lines 25-58, col. 36, lines 33-67 and col. 37, lines 1-4).

However, Kekic does not explicitly disclose:

- at least one distributed polling gateway.

In an analogous art, Barrack discloses a system and method for automatic network management support using artificial intelligence including:

- at least one distributed polling gateway (col. 2, lines 55-67 and col. 3, lines 1-42).

Accordingly, it would have been obvious to one of ordinary skill in the networking art at the time the invention was made to have incorporated Barrack's teachings of a system and method for automatic network management support with the teachings of Kekic, for the purpose of providing the user with a system that improves upon NMS (customized) "legacy" network management system and operation support systems scalability when adding more elements as well as the flexibility when adding these element. Which would significantly reduce cost and the human effort [see Barrack, Col. 3, lines 42-54]. Thus, Kekic provides the motivation to combine by utilizing a network management system as well as attempting to efficiently manage a constant changing network environment that includes heterogeneous elements [see Kekic, Col. 4, lines 57-67 and Col 5, lines 1-6].

As per claims 15, 17, 42 and 55, Kekic discloses:

- wherein one or more user-defined transition actions for said state transition are triggered in response to said state transition (col. 19, lines 25-58, col. 36, lines 33-67 and col. 37, lines 1-4).

As per claims 20 and 45, Kekic discloses:

- said central management system (abstract, col. 5, lines 40-51, col. 19, lines 25-58 and col. 39, lines 9-26).

However, Kekic does not explicitly disclose:

- wherein software code executes on at least one distributed polling gateway perform said correlating.

In an analogous art, Barrack discloses a system and method for automatic network management support using artificial intelligence including:

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- wherein software code executes on at least one distributed polling gateway perform said correlating (col. 2, lines 55-67 and col. 3, lines 1-42).

Accordingly, it would have been obvious to one of ordinary skill in the networking art at the time the invention was made to have incorporated Barrack's teachings of a system and method for automatic network management support with the teachings of Kekic, for the purpose of providing the user with a system that improves upon NMS (customized) "legacy" network management system and operation support systems scalability when adding more elements as well as the flexibility when adding these element. Which would significantly reduce cost and the human effort [see Barrack, Col. 3, lines 42-54]. Thus, Kekic provides the motivation to combine by utilizing a network management system as well as attempting to efficiently manage a constant changing network environment that includes heterogeneous elements [see Kekic, Col. 4, lines 57-67 and Col 5, lines 1-6].

As per claims **21** and **46**, Kekic discloses:

- wherein said software code triggers an action upon a user-defined pattern of states of said various different state models being achieved (col. 19, lines 25-58, col. 36, lines 33-67 and col. 37, lines 1-4).

As per claims **49** and **61**, Kekic discloses:

- software executing on said central management system to enable a user to define said at least one state model, wherein once a user defines said at least one state model (col. 19, lines 25-58, col. 36, lines 33-67 and col. 37, lines 1-4).

However, Kekic does not explicitly disclose:

- at least one distributed polling gateway.

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In an analogous art, Barrack discloses a system and method for automatic network management support using artificial intelligence including:

- at least one distributed polling gateway (col. 2, lines 55-67 and col. 3, lines 1-42).

Accordingly, it would have been obvious to one of ordinary skill in the networking art at the time the invention was made to have incorporated Barrack's teachings of a system and method for automatic network management support with the teachings of Kekic, for the purpose of providing the user with a system that improves upon NMS (customized) "legacy" network management system and operation support systems scalability when adding more elements as well as the flexibility when adding these element. Which would significantly reduce cost and the human effort [see Barrack, Col. 3, lines 42-54]. Thus, Kekic provides the motivation to combine by utilizing a network management system as well as attempting to efficiently manage a constant changing network environment that includes heterogeneous elements [see Kekic, Col. 4, lines 57-67 and Col 5, lines 1-6].

As per claim 50, Kekic discloses:

- at least one user defined poll service that includes one or more of said at least one state model (col. 19, lines 25-58, col. 36, lines 33-67 and col. 37, lines 1-4).

However, Kekic does not explicitly disclose:

- at least one distributed polling gateway.

In an analogous art, Barrack discloses a system and method for automatic network management support using artificial intelligence including:

- at least one distributed polling gateway (col. 2, lines 55-67 and col. 3, lines 1-42).



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Accordingly, it would have been obvious to one of ordinary skill in the networking art at the time the invention was made to have incorporated Barrack's teachings of a system and method for automatic network management support with the teachings of Kekic, for the purpose of providing the user with a system that improves upon NMS (customized) "legacy" network management system and operation support systems scalability when adding more elements as well as the flexibility when adding these element. Which would significantly reduce cost and the human effort [see Barrack, Col. 3, lines 42-54]. Thus, Kekic provides the motivation to combine by utilizing a network management system as well as attempting to efficiently manage a constant changing network environment that includes heterogeneous elements [see Kekic, Col. 4, lines 57-67 and Col 5, lines 1-6].

As per claim 51, Kekic discloses:

- software executing on said central management system to enable a user to define said at least one poll service, wherein once a user defines said at least one poll service (col. 19, lines 25-58, col. 36, lines 33-67 and col. 37, lines 1-4).

However, Kekic does not explicitly disclose:

- at least one distributed polling gateway.

In an analogous art, Barrack discloses a system and method for automatic network management support using artificial intelligence including:

- at least one distributed polling gateway (col. 2, lines 55-67 and col. 3, lines 1-42).

Accordingly, it would have been obvious to one of ordinary skill in the networking art at the time the invention was made to have incorporated Barrack's teachings of a system and method for automatic network management support with the teachings of Kekic, for the purpose of

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providing the user with a system that improves upon NMS (customized) “legacy” network management system and operation support systems scalability when adding more elements as well as the flexibility when adding these element. Which would significantly reduce cost and the human effort [see Barrack, Col. 3, lines 42-54]. Thus, Kekic provides the motivation to combine by utilizing a network management system as well as attempting to efficiently manage a constant changing network environment that includes heterogeneous elements [see Kekic, Col. 4, lines 57-67 and Col 5, lines 1-6].

As per claim 56, Kekic discloses:

- at least one pattern-based state model executing thereon to correlate various different state models (col. 19, lines 25-58 and col. 40, lines 43-67).

However, Kekic does not explicitly disclose:

- at least one distributed polling gateway.

In an analogous art, Barrack discloses a system and method for automatic network management support using artificial intelligence including:

- at least one distributed polling gateway (col. 2, lines 55-67 and col. 3, lines 1-42).

Accordingly, it would have been obvious to one of ordinary skill in the networking art at the time the invention was made to have incorporated Barrack’s teachings of a system and method for automatic network management support with the teachings of Kekic, for the purpose of providing the user with a system that improves upon NMS (customized) “legacy” network management system and operation support systems scalability when adding more elements as well as the flexibility when adding these element. Which would significantly reduce cost and the human effort [see Barrack, Col. 3, lines 42-54]. Thus, Kekic provides the motivation to

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combine by utilizing a network management system as well as attempting to efficiently manage a constant changing network environment that includes heterogeneous elements [see Kekic, Col. 4, lines 57-67 and Col 5, lines 1-6].

As per claim 57, Kekic discloses:

- wherein said at least one pattern-based state model specifies a user-defined pattern of states of said various different state models, and wherein said at least one pattern-based state model triggers an action upon said user-defined pattern of states being achieved (col. 19, lines 25-58, col. 36, lines 33-67 and col. 37, lines 1-4).

As per claims 22, 26, 47, 58 and 63, Kekic discloses wherein said action includes any one or more selected from the group consisting of:

- generating a user alert, clearing a user alert, starting particular services for said at least one network element, stopping particular services for said at least one network element, changing the interval utilized to poll said at least one network element, enabling a particular poll service for said at least one network element, disabling a particular poll service for said at least one network element, enabling a particular state model for said at least one network element, disabling a particular state model for said at least one network element, triggering one or more user-defined commands to be executed, triggering communication of an email message to personnel, triggering a page of personnel, logging achievement of said pattern of states to a file, and performing network element configuration (col. 19, lines 25-58, col. 35, lines 50-62 and col. 76, lines 50-67).

***Response to Arguments***

5. Applicant's arguments filed September 23, 2004 have been fully considered but they are not persuasive.

**The Office notes the following arguments:**

- a. Kekic fails to disclose or suggest implementing a distributed network element for a central management system.
- b. The recited motivational rationales, for the modifications of Kekic et al to include the differing aspects of the claimed distributed network elements or gateways and management features.

Thus, it is respectfully noted that some of the features may be repeated with slightly differing scope and breadth of claims 2-17, 20-22, 26, 36-42, 45-58, 61 and 63, it is respectfully submitted a prima facie obviousness standard requires more specificity of motivational rationale in rejecting differing features, i.e., the recited motivations rationales are too vague and expansive to provide applicants with sufficient information as to the underlying reasoning the Examiner has determined that such different proffered modifications of Kekic et al are obvious.

**In response to:**

- a. Applicant's argument is not persuasive. Applicant argues that Kekic does not disclose a distributed network element for a central management system. However, Kekic does disclose a distributed network element for a central management system (see Kekic (abstract, col. 5, lines 40-51, col. 6, lines 7-25, col. 15, lines 4-21, col. 19, lines 25-58, col. 24, lines 28-41, col. 36, lines 56-67 and col. 37, lines 1-4).
- b. Applicant's argument is not persuasive. Applicant argues that the motivational rationale is too vague and expansive to provide sufficient information as to the reasoning for the different

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proffered modifications of Kekic et al are obvious. Kekic et al does not teach a polling gateway. However, the Barrack's teachings of a system and method for automatic network management was used to support the teachings of Kekic et al for the purpose of providing a user with a system that improves upon NMS (customized) "legacy" network management system and operation support systems scalability when adding more elements as well as the flexibility when adding these elements, which would significantly reduce cost and human effort [Barrack, Col. 3, lines 42-54]. Thus, Kekic provides the motivation to combine utilizing a network management system as well as attempting to efficiently manage a constant changing network environment that includes heterogeneous elements [see Kekic et al, col. 4, lines 57-65 and col. 5, lines 1-6].

### *Conclusion*

6. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the mailing date of this final action.

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Any inquiry concerning this communication or earlier communications from the examiner should be directed to LaShonda T. Jacobs whose telephone number is 703-305-7494. The examiner can normally be reached on 8:30 AM - 5:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Ario Etienne can be reached on 703-308-7562. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

LaShonda T. Jacobs  
Examiner  
Art Unit 2157

ltj  
December 14, 2004

  
ARIO ETIENNE  
SUPERVISORY PATENT EXAMINER  
TECHNOLOGY CENTER 2100